

IN THE CLAIMS

1-10. (canceled)

11. (currently amended) A membrane ~~comprising~~ consisting of a composition including

(a) 10 to 90 wt-% of at least one polyurethane elastomer comprising at least one hard segment and at least one soft segment, and

(b) 90 to 10 wt-% of a solid,

wherein said solid is incorporated in said at least one polyurethane elastomer, ~~and the melting point of the hard segment is more than 100°C~~ and said solid is an inorganic Li-ion-conducting solid.

12. (previously presented) A membrane according to claim 11, wherein the at least one polyurethane elastomer is a thermoplastic polyurethane elastomer.

13. (previously presented) Membrane according to claim 11, wherein the solid has a primary particle size of 0.005 to 30 microns.

14. (currently amended) Membrane according to claim 11, wherein the polyurethane elastomer has at least one of the following characteristics:

(a) a melting point of the hard segment of more than 100°C, and

(b) the soft segment comprises ether linkages, ester linkages or carbonate linkages or a combination of two or more thereof.

15-30. (canceled)

31. (previously presented) Membrane according to claim 11, wherein the polyurethane elastomer contains at least two thermoplastic, nonelastic polymer blocks having a melting temperature above 100 °C and an average molecular weight of 240 to 10,000 (hard segment) and between said thermoplastic, nonelastomeric polymer blocks an elastomeric block having a glass transition temperature below 10 °C and an average molecular weight of about 240 to 100,000.
32. (new) Membrane according to claim 11, wherein the Li-ion-conducting solid is selected from the group consisting of lithium borates, lithium aluminates, lithium aluminosilicates, lithium zeolites, lithium carbides, lithium oxides, lithium mixed oxides,  $\text{Li}_2\text{NH}$ ,  $\text{LiNH}_2$ , lithium phosphates,  $\text{Li}_2\text{CO}_3$ , lithium silicates in the form of ladder-type, ino-, phyllo- and tectosilicates, lithium sulfates and mixtures thereof.
33. (new) Membrane according to claim 32, wherein
- the lithium borates are selected from the group consisting of  $\text{Li}_4\text{B}_6\text{O}_{11} \cdot x\text{H}_2\text{O}$ ,  $\text{Li}_3(\text{BO}_2)_3$ ,  $\text{Li}_2\text{B}_4\text{O}_7 \cdot x\text{H}_2\text{O}$ ,  $\text{LiBO}_2$ , where x can be a number from 0 to 20;
  - the lithium aluminates are selected from the group consisting of  $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$  and  $\text{Li}_2\text{Al}_2\text{O}_4$  and  $\text{LiAlO}_2$ ;
  - the lithium aluminosilicates are selected from the group consisting of lithium-containing zeolites, feldspars, feldspathoids, phyllo- and ino-silicates,  $\text{LiAlSi}_2\text{O}_6$  (spodumene),  $\text{LiAlSi}_4\text{O}_{10}$  (petullite),  $\text{LiAlSiO}_4$  (eucryptite), and micas;
  - the lithium zeolites have a fiber-like, sheet-like or cube-like form and have

the formula  $\text{Li}_{2/z}\text{O} * \text{Al}_2\text{O}_3 * x\text{SiO}_2 * y\text{H}_2\text{O}$  where  $z$  corresponds to the valence,  $x$  is from 1.8 to about 12 and  $y$  is from 0 to about 8;

the lithium carbides are selected from the group consisting of  $\text{Li}_2\text{C}_2$ ,  $\text{Li}_4\text{C}$ ,  $\text{Li}_3\text{N}$ ;

the lithium oxides and lithium mixed oxides are selected from the group consisting of  $\text{LiAlO}_2$ ,  $\text{Li}_2\text{MnO}_3$ ,  $\text{Li}_2\text{O}$ ,  $\text{Li}_2\text{O}_2$ ,  $\text{Li}_2\text{MnO}_4$  and  $\text{Li}_2\text{TiO}_3$ ;

the lithium phosphates are selected from the group consisting of  $\text{Li}_3\text{PO}_4$ ,  $\text{LiPO}_3$ ,  $\text{LiAlFPO}_4$ ,  $\text{LiAl(OH)PO}_4$ ,  $\text{LiFePO}_4$  and  $\text{LiMnPO}_4$ ;

the lithium silicates are selected from the group consisting of  $\text{Li}_2\text{SiO}_3$ ,  $\text{Li}_2\text{SiO}_4$ ,  $\text{Li}_2\text{S-SiS}_2$  and mechanically milled products from  $\text{Li}_2\text{S}$ ,  $\text{SiS}_2$  and  $\text{Li}_4\text{SiO}_2$ ;  
and

the lithium sulfates are selected from the group consisting of  $\text{Li}_2\text{SO}_4$ ,  $\text{LiHSO}_4$ , and  $\text{LiKSO}_4$ .